RM-11306
Comment

I would like to voice my opposition to the ARRL proposed design for bandwidth management in the current Amateur Radio Bands. While the idea of managing the bandwidth used, rather then the transmission mode, has some "simplistic appeal," the total of the ARRL proposal is seriously flawed because it ignores the serious incompatibilities that exist between digital and analog transmission modes and systems.
Further, the ARRL introduces a "new mode of operation" titled "semi-automatic operation." This mode, which does not exist today, would be allowed across all the Amateur Bands. This mode would allow an individual user at one end of the link and a "data robot" at the other end of the link. There are numerous serious issues with this mode as proposed. First, the traffic statistics associated with this mode are likely to be very different from "human to human" communications. The "data robot" has the ability to stream unlimited data at relatively slow speed to the user. A very few of these links operating simultaneously could easily saturate the entire bandwidth of one of the Amateur Bands.

The ARRL proposal to allow any digital transmission mode with any, previously published coding scheme, will make it virtually impossible for most radio amateurs to identify users with illegal signal bandwidths or serious signal spurs caused by complex digital transmission schemes. This will prevent radio amateurs from effectively "policing" amateur band usage – a function they do very well today through the Official Observer program and informal communications on the bands. I believe there should be a technical review (Not done by the ARRL) of what may be required to allow radio amateurs to self-police the usage of the amateur bands with expanded digital mode communications. It may be that, for some time, it will be necessary for the digital user to identify his call-sign in a transmission mode that is easily copied and understood by the current amateur radio community.

I believe it is a good idea to open larger segments of the Amateur Bands for digital communication and experimentation. However, it only makes sense – based on the different equipment types and transmission message statistics – to separate the digital activity from the current transmission modes and schemes – which today predominantly are designed to support interactive-human to interactive-human communications. Other counties have clearly recognized this issue in their expansion of digital mode communications bandwidth.

I also believe there should be a technical review (Not done by the ARRL) of what may be required to allow radio amateurs to self-police the usage of the

amateur bands with expanded digital mode communications. It may be that, for some time, it will be necessary for the digital user to identify his call-sign in a transmission mode that is easily copied and understood by the current amateur radio community. I believe the FCC should also review what measurements need to be able to be made by a "digital transmission operator" to assure that the transmission signals is within prescribed bandwidths. The use of PSK-31 (Which I operate) is a daily reminder that some of the radio amateurs don't understand the impact of poor transmitter adjustment with this mode of digital transmission and do not have signal monitoring equipment to assure them that their PSK transmission is within the prescribed bandwidth.

In summation, the ARRL proposal is seriously flawed by not addressing the difference in traffic statistics between the proposed "semi-automatic" transmission mode and the current traffic with is dominated by "people communicating with people." The use of this mode should be limited and segregated from current transmission modes. The ARRL has given no consideration to what will be required for the current amateur radio community to "self-police" the Amateur Radio bands using the new and unique digital transmission modes and coding techniques. Also the ARRL has given no consideration to what signal measurements should be required to operate a digital transmission within the legal guidelines (bandwidth and power). While the opening of more amateur spectrum to digital modes of transmission makes good sense, the ARRL proposal should be rejected until its serious flaws are addressed.